REMARKS

Claims 1-9, 11-14, 18, 21, 23-25, and 29-31 are pending in this application. Claims 1, 13, 18, 21, 23, and 29 are herein amended. Claims 35-42 are new.

The Examiner objected to claim 18. The Applicants have amended accordingly, and respectfully request the Examiner's reconsideration and withdrawal of this objection.

Claims 1, 2, 4-7, 13, 18, 21, 23, 29-31 were rejected under 35 USC § 103(a) as being unpatentable over IEEE 802.3 2000 (IEEE 802.3) in view of U.S. 6,169,729 (Feuerstraeter), and further in view of U.S. 5,907,553 (Kelley). Also, claims 1, 3, 8-9, 21, 23, and 29 were rejected under 35 USC § 103(a) as being unpatentable over IEEE 802.3 in view of Feuerstraeter, and further in view of Kelley and IEEE 802.3 2002 (IEEE 2002). Also, claims 11, 12 and 14 were rejected under 35 USC § 103(a) as being unpatentable over IEEE 802.3 in view of Feuerstraeter, and further in view of Kelley and U.S. Publication No. 20020091884 (Chang). Also, claims 24-25 were rejected under 35 USC § 103(a) as being unpatentable over IEEE 802.3 in view of Feuerstraeter, and further in view of Kelley and U.S. 5,889,776 (Liang).

The Applicants traverse these rejections. In addition, the Applicants have amended to more distinctly define the claimed invention, and have added new claims to define particular additional distinguishing features.

The Applicants' claims define techniques (e.g., device, system, method, etc) for negotiating a data transmission mode in a device-to-device interconnection (DDI) during a negotiation period prior to entering an operational mode. The techniques include selectively configuring, or the capability to selectively configure, a data transceiver to transmit and receive data on a DDI according to a data transmission mode based upon detected 8B/10B code groups. Thus, the claimed negotiation allows the data transceiver to be properly configured, so that the transceiver can subsequently proceed to an operational mode and transmit data according a negotiated data transmission mode.

This subtle pre-operational mode link negotiation feature of the claimed invention allows link negotiation and transceiver configuration to be carried out without requiring physical coding sublayers (PCS) of the transceiver to be operating, as the claimed invention operates beneath

those sublayers (because the data transceiver must be configured by the claimed invention prior to that transceiver being enabled for operational mode communication, as variously recited in the Applicants' claims). Moreover, the claimed invention can be used in conjunction with other negotiation schemes that occur after the claimed "negotiation period" and when the newly configured transceiver is enabled. For instance, and as shown in the Applicants' Figure 6, the claimed invention is "capable of encapsulated autonegotiation of an operational mode following negotiation of a data transmission mode in a DDI" (see also description of Figure 6 at the Applicants' specification, paragraph # 0048). To this end, new claims 35, 37, 39, and 41 recite carrying out (or the capability to carry out) an encapsulated autonegotiation during the operational mode to identify additional capabilities while communicating according to a data transmission mode selected during the negotiation period. In addition, new claims 36, 38, 40, and 42 recite enabling (or the capability to enable) a configured transceiver PCS to operate in a data transmission mode selected during the negotiation period.

Thus, the Applicants respectfully submit that the claimed invention subtly but clearly defines a negotiation period where a non-enabled transceiver is configured for subsequent use in an operational mode. Dependent claim 13, as well as the new dependent claims 35-42, further define these limitations.

As previously explained by the Applicants in their last response, clause 28 of IEEE 802.3 fails to disclose or teach selectively configuring the data transceiver to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups, as variously recited in the Applicants' claims. Indeed, clause 28 is limited in its stated application to twisted pair applications (such as 10BASE-T, 100BASETX, or 100BASE-T4 applications), and does not address 8B/10B code groups, let alone 8B/10B code groups on a device-to-device interconnection (DDI). In addition, the Applicants further note that page 700, clause 28.1.4 of IEEE 802.3, discloses: "Connection to technologies other than 10BASE-T, 100BASETX, or 100BASE-T4 that do not incorporate Auto-Negotiation is not supported." (underlining added for emphasis). Thus, IEEE 802.3 actually teaches away from using clause 28 on non-twisted pair links.

As also previously noted by the Applicants, although 8B/10B code groups are discussed in clauses 36 and 37 of IEEE 802.3, the context in which these code groups are discussed is

different than the context of the claimed invention. In more detail, clauses 36 and 37 only apply when the transceiver is already configured and enabled. Thus, the claimed invention can be used in conjunction with clauses 36 and 37. To this end, note the Applicants' specification at paragraph #0048, which discusses clause 37:

> "The selected data transmission mode may define an encapsulated negotiation process such as 1000BASE-X as provided in IEEE Std. 802.3-2000, clause 37. For example, during a negotiation period the link pulse negotiation sections 354 may enable PMA and PCS sections (not shown) in the data transceivers 356 to configure the data transceivers 356 to communicate in the selected data communication mode. Following the negotiation period, encapsulated negotiation sections 352 may identify additional capabilities (e.g., in a protocol layer defined above a PMA section) while communicating according to the selected data transmission mode."

In short, there are a number of subtle, but non-trivial points associated with IEEE 802.3 and its numerous chapters, with each chapter having a particular context to which it is relevant. This relevance must be understood and taken into consideration when applying IEEE 802.3 to the Applicants' claimed invention. This discussion equally applies to chapters 47 and 48 of IEEE 2002, which discusses 8B/10B code groups in the context of a link having configured and enabled transceivers (e.g., enabled PCS and PMA).

The Applicants can find no occurrence where any of the other references of record (including Feuerstraeter, Kelley, Chang, Liang) remedy this deficiency of IEEE 802.3 and IEEE 2002, in that none of the references, whether alone or in combination, disclose or suggest selectively configuring a data transceiver, in the context of negotiating a data transmission mode in a DDI during a negotiation period prior to entering an operational mode, to transmit and receive data on the DDI according to a data transmission mode based upon the detected 8B/10B code groups.

Thus, the Applicants have reviewed the Examiner's position regarding the combination of the various chapters of IEEE 802.3, and respectfully submit that when taken as a whole and in the given context, one skilled in the art would not be motivated to combine the various context-specific chapters of IEEE 802.3 or IEEE 2002 to arrive at the claimed invention as described by

the Examiner. Each of IEEE 802.3 or IEEE 2002 teach away from such combining, by compartmentalizing particular applications per chapter and expressly disclosing limitations associated with each chapter (e.g., page 700, chapter 28.1.4 of IEEE 802.3 discloses connection to technologies other than 10BASE-T, 100BASETX, or 100BASE-T4 that do not incorporate Auto-Negotiation are not supported). When a claimed invention is not identically disclosed in a reference, and instead requires picking and choosing among a number of different options disclosed by the reference, then the reference does not anticipate. *Mendenhall v. Astec Industries, Inc.* 13 USPQ2d 1913, 1928 (Tenn. 1988), *aff'd*, 13 USPQ2d 1956 (Fed. Cir. 1989). Furthermore: "It is not proper to dissect claims and reconstruct them in piecemeal fashion by picking and choosing from among the prior art references using the patent as a blueprint. *In re Kamm*, 172 USPQ 298, 301-02 (CCPA 1972). Rather, when determining obviousness, the focused inquiry is not whether each element existed in the prior art, but whether the prior art made obvious the claimed invention as a whole. *Hartness Int'l, Inc. v. Simplimatic Eng'g Co.*, 2 USPQ2d 1826, 1832 (Fed. Cir. 1987).

For at least the reasons discussed herein, the Applicants respectfully request the Examiner's reconsideration and withdrawal of these rejections.

Favorable action is solicited. The Examiner is kindly invited to telephone Applicants' undersigned attorney (603-668-6560) to facilitate prosecution of this application.

Respectfully submitted,

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